Program Summary Sheet

TOWED ARTILLERY DIGITIZATION

PEO/DSA: GCS **FY:** 03
Incumbent: Raymond H. Nulk **Rotation Date:** Jul 03

Command Selection Criteria

1. Description of Program/Command:
Lightweight 155mm Howitzer/Towed Artillery Digitization is a joint Army−Marine Corps program to develop/field new lightweight 155mm howitzer with digital fire control and automation enhancements. LW155 system provides howitzer that meets all M198 requirements reducing the system's size/weight. Weight reduction allows faster emplacement/displacement times and improves survivability and strategic/tactical lift; incorporates extensive us of titanium, automatic primer feed system, suspension system. Extensive use of contractor logistic support for repair parts supply; digitization provides light artillery a semi−autonomous capability with vast improvements in survivability,responsivenss,accuracy,lethality, combat reliability. Includes howitzer self−location, directional control,processing muzzle velocity,digital direct fire capability,ammunition management,digital,voice communication,and on−board power supply and computation of firing data.

2. Description of PMs/Commanders Responsibilities:
Represents/supports Army's interests in development/integration of LW155/TAD.Exercises full product management/materiel acquisition responsibility for maintaining program baseline costs,schedules,technical thresholds to ensure integration/delivery of digitized LW155 howitzer.Responsible for execution of EMD,contractor oversight,procurement,fielding,post−production support planning for digitized LW155 howitzer for both services;coordinates/presents budget estimates/oversees execution of all Army RDTE/procurement funds/contractor efforts.Responsible for planning/execution of testing integrated LW155 digital fire control system/automation enhancements on individual weapon platforms,FDCs,prime movers. Assists JPMLW155 in managing/direction minimum of 57 personnel.

3. Desirable Characteristics:
a. Military Education:
PMT 302, Advanced Program Management Course; Level II Software Certification required; Level III desired.

b. Civilian Education:
Master's Degree in Computer Science or Business Management.

c. Experience:
Platoon Leader, Fire Direction Officer and Battery Commander; Field Artillery positions; materiel acquisition experience at Department of the Army, Department of Defense, or Joint Staff level.

d. Security Clearance: SECRET
e. Other:
Overall outstanding performance. Branch/Functional: 51.

4. Administrative Data:
a. Duty Station
City: Picatinny Arsenal **State:** NJ
b. UIC: W27P10
c. Report Date: Month: Jun **Year:** 03

Other Significant Command Information

1a. Significant Congressional, Office of the Secretary of Defense, and/or Army Interest:
Special interest development program since FY94. Initial Advanced Towed Cannon System(ATCAS)tech−base program received Congressional enhancement and Army/Marine Corps tech−base funds to develop automated fire control technology demonstrator for use in Army/Marine Corps warfighting experiments in FY95/96. Successfully validated LW155/TAD joint operational requirements, supported additional Army funding to develop more mature demonstrator for participation in Rapid Force Projection Initiative in FY98, extended user evaluation in FY99−00. Program received FY99 Congressional enhancement to allow LW155/TAD EMD start in early FY00 better aligning development of digitization suite with Marine Corps LW155 procurement.Army will fund RDTE of objective TAD in FY00−03 for Army/USMC.Each service has budgeted to procure and outfit all LW155 howitzers with the digitization.

b. Significant Impact on Military Posture and Readiness:
Combination of smaller,lighter weight howitzer along with benefits of digital fire control/automation will dramatically improve future towed howitzer survivability,responsiveness,accuracy,lethality, combat reliability and provide light artillery a semi−autonomous capability currently found only in self−propelled howitzers. LW155 will meet all M198 requirements while reducing weight from 16,000 to 9,000 lbs. Allows faster emplacement/displacement times and allows tactical lift by MV−22 and UH−60. LW155/TAD's smaller size significantly reduces strategic lift requirements, includes howitzer self−location,directional control,processing of muzzle velocity,digital direct fire capability,ammunition management,digital,voice communication,on−board power supply/computation of firing data.Digitized LW155 howitzer will eliminate crew's reliance on field artillery survey personnel,aiming circles,aiming posts,collimators. Enhancements will be designed for current/developmental towed howitzers in light forces inventory.

c. Extensive Interdepartmental, National, or International Coordination:
As joint program between Army/Marine Corps attracted interest/funding from United Kingdom and Italian Ministries of Defense. Both UK/Australia have expressed interest and possible future procurement. UK interested in potential to leverage related UK development programs. Program has significant capacity for foreign cooperative development and foreign military sales. Program requires extensive coordination with other PMs (Crusader,Paladin,Mortar Fire Control System,FMTV,MTVR,AFATDS,GPS,SINCGARS and others) to ensure compatibility with/maximum reuse of existing hardware and software while meeting unique needs of the light forces in both Services.

d. Unusual Organizational Complexity, Technological Advancement or Interface Control:
Due to severe operating conditions of towed howitzer compared to self−propelled artillery,space/weight limitations,system will be a more technologically advanced system than currently fielded or commercially available. Incorporates extensive use of titanium,automatic primer feed system,suspension system,both new to US towed howitzers. Extensive use is being made of contractor logistic support for repair parts supply.System software must interface with numerous ancillary devices;hardware must be repairable,modular,to facilitate replacement at lowest level. State−of−the−art miniaturization/consolidation of components required to meet physical constraints of objective platforms. Unique requirements of system,horizontal technology integration and compatibility with related fire support and ADP systems are major objectives.

e. Unusual Difficulties Requiring Centralized Management:
LW155/TAD will interface with various related fire support and C4I systems, such as AFATDS, SINCGARS, and GPS. The TAD technology is also intended for use on all other current and future towed howitzer platforms. The LW155 howitzer program is an

international effort involving both the United Kingdom and Italian Ministries of Defense (MOD) in the development of the next generation towed artillery system.

2. Systems currently managed by the PM:
LW155/TAD PM will manage all activities in the design,development,integration,testing and production planning of TAD for all towed howitzer platforms.